NEW CURCULIONIDAE FROM BRITISH COLUMBIA I

(Coleoptera: Rhyncophora)

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The following species new to science were found in material sent to the author for identification by G. Stace Smith of Creston, British Columbia, and H. B. Leech of the California Academy of Sciences. The material used in this study is in the following collections: Canadian National Collection (C.N.C.); E. L. Sleeper Collection (E.L.S.); G. Stace Smith Collection (G.S.S.); and the Entomological Collection, California Academy of Sciences (C.A.S.). The author is indebted to both for the type material.

Sitona lupina Sleeper, new species

Male.—Elongate, robust, parallel; black throughout; elytra densely covered with very small, ovate, gray, white and black scales which obscure punctures of intervals and nearly those of striae; intervals moderately clothed with long, brown, appressed setae, alternate intervals with distant, erect white setae; prothorax sparsely covered with larger, oval white and brown scales, densely clothed with suberect setae; head and rostrum sparsely covered with narrow, elongate, white and cupreous appressed scales, appressed white setae and long, erect, bristling brownish setae which are visible only in profile.

Rostrum slightly longer than wide; carinate medially in apical third, carinate laterally throughout length; deeply, narrowly sulcate from apical third to vertex of head; densely coarsely punctured, intervals between finely punctulate. Antennal scape nearly as long as funicle, less than one half longer than club. First segment slightly longer than following two, second longer than third. Head coarsely, deeply punctured with intermixed finer punctures. Eyes feebly convex, inner margin distinctly elevated above front.

Prothorax wider than long, sides strongly arcuate, strongly constricted at apex; pronotum with large, dense, coarse punctures. Scutellum densely clothed with robust, elongate, flattened pearl white scales. Elytra elongate, sides parallel in basal half then evenly rounded to apex; striae deeply impressed, strial punctures small, rounded, deep, about twice their diameter apart, each puncture with an appressed, white, bristle-like setae; intervals feebly convex, densely covered with scales, third interval tesselated throughout length; odd intervals with distantly placed, long, semierect, white, bristle-like setae. Ventral side densely clothed with rounded white scales, and long reclining, fine, white setae; apex of fifth abdominal segment with a small patch of brown scales and setae. Abdominal segments finely, densely punctured; posterior margin of first emarginate at middle, first and second

segments broadly concave at middle, fifth segment flattened, truncate at apex. Pygidium visible. Length 6.3, width 2.5 mm.

Female.—First segment of antennae only as long as following two combined, second longer than third. First abdominal segment strongly convex, posterior margin broadly sinuate, posterior half very feebly depressed, second not impressed, fifth segment sloping upward, with a rounded, denuded spot at apex, apex broadly rounded, not truncate. Pygidium not visible. Length 6.2 mm., width 2.4 mm. (All measurements of length are from the base of the rostrum to the apices of the elytra.)

Holotype male, and allotype female, Creston, British Columbia V-17-1945 (G. Stace Smith, E.L.S.). Nineteen paratypes: 5, V-16-1945; 1, V-17-1945 (E.L.S.); 4, V-16-1945; 3, V-18-1945; 3, V-19-1945; 2, V-17-1945; 1, IV-21-1930 (G.S.S.). All type material from Creston, British Columbia, collected by G. Stace Smith on Lupinus sericeus Pursh. Length of paratypes 4.6–6.5 mm., width 1.7–2.5 mm.

S. lupina is near S. prominens Casey but is more robust; it differs in antennal characters and has the rostrum longer and more slender. In the type series the males are uniformly larger than the females.

Listronotus leechi Sleeper, new species

Male.—Oblong, robust; black, antennae and tarsi dark reddish brown; densely clothed with round, flat, appressed, brown, black, and white scales; each elytral interval with a row of erect, distantly placed, nearly clavate setae.

Rostrum as long as pronotum, robust, nearly straight, with a prominent carina at middle in apical fourth, carina subobsolete toward base, coarsely, closely, deeply punctured; densely clothed with rounded scales, laterally with erect, bristle-like setae. Antennae inserted in apical fourth; second segment of funicle only one-third longer than first. Head convex, closely, coarsely deeply punctured; densely covered with round flat scales except along apical margin of prothorax where scales are narrowed, appressed and seta-like; front with a small, deep, rounded puncture. Prothorax slightly wider than long; sides evenly rounded, evenly arcuate at base; pronotum densely, coarsely, deeply punctured with scattered larger punctures each with a long, erect, bristle-like setae; clothed with intermixed black and brown scales, lighter scales more frequent laterally. Scutellum densely clothed with narrow, white, appressed scales. Elytra oblong, one-fourth wider at base than prothorax, sides parallel in basal two-thirds then rounded to apex; tips of elytra conjointly rounded; striae fine, feebly impressed, punctures minute, rounded; intervals flat, densely covered with intermixed black, brown, and white scales, each interval with a row of distantly placed setae, more prominent at declivity. Ventral side densely clothed with round scales, long, erect, fine setae and short, fine, appressed setae. First visible abdominal segment broadly, deeply impressed, second slightly depressed at middle, fifth segment feebly convex; all segments coarsely, closely, deeply punctured throughout. Length 5.7 mm., width 2.3 mm.

Female.—First abdominal segment strongly convex, feebly impressed along posterior margin at middle; fifth ventral strongly impressed longitudinally at middle, a blunt tubercle each side of impression, bottom of impression smooth shining. Length 6.6 mm., width 2.6 mm.

Holotype male, and allotype female, RAWLINGS LAKE, LUMBY, BRITISH COLUMBIA X-3-46 (H. B. Leech, C.N.C.). Ninety-one paratypes deposited as follows: 18 (E.L.S.); 37 H. B. Leech (C.A.S.); 18 (G.S.S.); and 18 (C.N.C.). All material was collected by H. B. Leech at the type locality the same date. Length of paratypes 4.3-6.7 mm., width 1.6-2.8 mm. All examples were found beneath stones.

L. leechi is nearest L. debilis Blatchley, but leechi has the fifth abdominal segment of the male evenly punctured throughout without a median apical smooth area of debilis; fifth abdominal segment of debilis scarcely modified, having only a median apical area which is less densely and more finely punctuate, this region but very slightly depressed.

Dorytomus columbianus Sleeper, new species

Male.—Oblong, convex, subparallel; black; head, rostrum, median line of pronotum, and antennae dark reddish brown; prothorax, a fascia on elytra, outer edge of abdominal segments, legs, and tarsi reddish brown; densely clothed with fine white and black appressed setae.

Rostrum as long as pronotum, straight, moderately robust, finely, densely punctured, feebly carinulate. Antennae inserted in apical third. First segment of funicle shorter than following two. Club darker. Head convex, coarsely, deeply punctate, intervals between punctures alutaceous; front punctured, without fovae. Prothorax wider than long, quadrate, sides subparallel, suddenly rounded to apical constriction; pronotum closely, coarsely punctate; vestiture sparse on pronotum, condensed in a line each side of prothorax. Elytra elongate, sides parallel in basal half, then evenly rounded to apex; striae feebly impressed, punctures round, deep, close-set, about half their diameter apart; intervals broad, feebly convex, confusedly, minutely punctulate. Ventral side densely clothed with long, pale, prostrate setae; abdominal segments densely punctured. Prosternum shallowly emarginate in front of coxae. Femora robust, darkened distally. Anterior femora armed with a large, broad tooth. Tibiae long, slender. Claws large, divergent, simple. Length 4.2 mm., width 1.8 mm.

Female.—Oblong, convex, subparallel; reddish brown, rostrum, head, median line of pronotum, antennae, and basal fourth of elytra dark reddish brown, metasternum, lateral side pieces of meso- and metasternum black, a large black spot at apical declivity of elytra interrupted by dark reddish

brown sutural line; densely clothed with fine white and black appressed setae. Rostrum one-fourth longer than pronotum, slender, straight, densely, finely punctured, feebly carinulate. Antennae inserted just beyond middle; first segment of funicle as long as preceding two. Club darker. Head convex, coarsely, deeply punctate, intervals between punctures smooth, shining; vertex with a small deep, elongate puncture. Prothorax as in male. Elytra as in male, except as follows: striae less strongly impressed; intervals more flattened; black spot at declivity interrupted so as to appear as two individual spots; vestiture condensed in uneven maculae. Ventral side as in male; except coloration of abdominal segments which are reddish brown throughout. Anterior femora with a small tooth. Length 4.7 mm., width 2.1 mm.

Holotype, male, Creston, British Columbia, IV-13-52, (G. Stace Smith, E.L.S.). Allotype, female, Creston, British Columbia, IV-11-52 (G. Stace Smith, E.L.S.). Two hundred and twenty-three paratypes deposited as follows: 2, IV-7-52; 8, IV-9-52; 10, IV-11-52; 53, IV-13-52; 3, IV-15-52; 2, IV-23-52; 2, IV-27-52; (E.L.S.). 20, IV-13-52; (C.N.C.). 8, IV-9-52; 16, IV-11-52; 98, IV-13-52; 1, IV-23-52; (G.S.S.). All material was collected at Creston, British Columbia by G. Stace Smith. Length of paratypes 4.0-4.7 mm., width 1.8-2.1 mm. Beaten from the top of a giant popular (Populus trichocarpa T. & G.) by G. Stace Smith.

The male of this species is unlike any other species of the genus. The female resembles superficially *D. nubeculinus* Casey but differs by the longer, feebly carinulate rostrum, shorter first segment of the funicle, darkened club, and small, deep, elongate puncture on vertex.

Magdalis lecontei decepta Sleeper, new species

Male.—Cuneiform, robust, strongly convex, dark blue; rostrum, antennae, and tarsi black.

Rostrum strongly curved, cylindrical, one third longer than pronotum, finely densely punctured, densely rugosely punctured laterally between eye and point of insertion of antennae. Antennae inserted at basal two-fifths of rostrum. First segment of funicle longer than second, second shorter than following two segments. Head densely, closely punctured, intervals between punctures alutaceous. Prothorax strongly convex, wider than long, sides converging from base to apex, apex three-fifths as wide as base; pronotum coarsely, closely punctured, intervals between punctures alutaceous. Elytra elongate, sides feebly divergent in basal three-fourths, then rounded to apex; striae not impressed, strial punctures elongate, rectangular, deep, very narrowly separated; intervals broad, flat, punctures confusedly placed on intervals. Ventral side closely, coarsely punctured; abdominal segments 2-5 finely densely punctured, clothed with short, fine, pale, appressed pubescence. First abdominal segment narrowly deeply impressed. Lateral side pieces denuded. Length 6.2 mm., width 2.6 mm.

Female.—Rostrum one-half longer than pronotum, feebly curved. Poster-

ior half of first abdominal segment and anterior half of second segment broadly, shallowly impressed. Length 6.3 mm., width 3.0 mm.

Holotype male, and allotype female, Kelowna, British Columbia, V-14-1932 (G. Stace Smith, E.L.S.). Two paratypes, male and female, same data (G.S.S.). Length of paratypes 6.0–6.3 mm., width 2.7–3.0 mm. I am also placing two examples, one from Sanca, British Columbia, VI-9-1933 (G. Stace Smith), and Kootenay Landing, British Columbia, Shaw Creek, VI-18-50 (G. Stace Smith, G.S.S.).

This subspecies closely resembles *M. lecontei lecontei* Horn but differs as follows: strial punctures elongate, rectangular, deep, very narrowly separated; second segment of antennae shorter than first, shorter than following two segments.

M. lecontei decepta represents a northern subspecies of this group. M. lecontei lecontei occurs in Oregon, California, Arizona, Colorado, Wyoming, and southern Washington; M. lecontei superba Fall is known from Arizona, M. lecontei tenebrosa Fall is known from New Mexico, Colorado, and California, M. lecontei tinctipennis Fall is known from Cloudcroft, New Mexico and Williams, Arizona.

Anthonomus deceptus Sleeper, new species

Male.—Elongate, oval, red, feebly shining, head, meso- and metasternum dark reddish black; very sparsely clothed with short, fine, prostrate white pubescence.

Rostrum one-half longer than pronotum, feebly curved, coarsely, densely punctate throughout, more densely just before eyes, a prominent dorsal median carina from base to apical third. Scrobes of antennae directed against eyes. Antennal scape not reaching eyes; funicle six-segmented, first segment as long as second and third combined, second as long as third and fourth, sixth segment subcontiguous with club. Club narrow, elongate, loose, preceptibly darker at tip. Head coarsely, moderately punctate; front rugosely punctate. Prothorax wider than long, sides arcuate in basal two-thirds, then moderately constricted to apex; pronotum coarsely, closely, deeply punctate, pubescence directed anteriorly, more coarse just before scutellum. Elytra one-third wider at base than prothorax, sides sub-parallel to apical third, then rounded to apex; striae impressed, strial punctures coarse, round, deep, separated about one-half their diameter; intervals very feebly convex. Ventral side clothed as dorsum, vestiture a little coarser on meso- and metasternum. Abdominal segments very minutely, sparsely punctate, third and fourth segments equal, fifth nearly as long as fourth. Front and middle femora with a very small tooth, posterior femora each with a very minute denticle. Front and middle tibiae mucronate, posterior tibiae unarmed at tip. Tarsal claws armed with a large, distinct tooth. Length 2.7 mm., width 1.3 mm.

Holotype male, COPPER MOUNTAIN, BRITISH COLUMBIA, VI-8-30 (G. Stace Smith, E.L.S.).

In general appearance this could be quite easily confused with a member of the genus *Pseudanthonomus*. However, it must be placed in *Anthonomus* because the scrobes are directed against the eyes while in *Pseudanthonomus* they are always distinctly directed beneath the eye. This species is not closely related to any other member of the genus *Anthonomus*. It is peculiar in the relationship of the last segment of the funicle to the club and in structure of the club.

Anthonomus quesnelensis Sleeper, new species

Male.—Elongate, very convex; black; antennae, legs, and tarsi pale reddish brown; densely clothed with oval appressed scales which are predominately brown; scutellum, short scutellar line, interrupted line on fourth interval commencing about middle, another on sixth interval from base to middle, of white scales.

Rostrum one-third longer than pronotum, strongly-curved, slender, cylindrical, deeply, densely punctured throughout, faint evidence of a median carina in basal half, base sparsely clothed with white scales. Antennae inserted in apical third, funicle six-segmented, first segment longer than second and third combined, second longer than third, third and fourth equal. Club darker almost black. Head convex, densely clothed with white scales, front with elongate, deep fovae. Prothorax wider than long, sides convergent from base, slightly rounded; apex very feebly constricted; pronotum coarsely, densely punctured, with a narrow median line and a stripe each side of white scales. Elytra oval, scarcely wider at base than prothorax, sides evenly rounded, widest at middle; striae deep, punctures large, close-set, about half their diameters apart, obscured by scales; intervals broad, strongly convex, finely punctulate. Ventral side densely clothed with oval, appressed, white scales. Abdominal segments finely, sparsely, deeply punctured, fifth segment with a few narrow hair-like scales at apex; pygidium prominently visible from ventral view. Legs slender, densely clothed with white scales. Anterior femora armed with a very minute acute tooth, remaining femora unarmed. Claws darkened, each armed with a long slender tooth. Length 2.2 mm., width 0.9 mm.

Female.—Very similar to male, with the rostrum nearly twice as long as pronotum; fifth abdominal segment longer, more coarsely punctured, evenly rounded to apex; pygidium not visible from ventral view. Length 2.3 mm., width 1.0 mm.

Holotype male, Quesnel, British Columbia, VI-16-1949, G. J. Spencer, allotype female, same locality, VII-11-1949 (E.L.S.). Six paratypes all males are as follows: 1, same data as holotype (E.L.S.); 2, same data as holotype; and 1, same locality as holo-

type, VII-2-1949 (G.S.S.); 2, same data as holotype in collection of G. J. Spencer, University of British Columbia.

This species is nearest to A. lineatulus Dietz, to which it keys in Dietz (1891). It differs from lineatulus as follows: rostrum not depressed near apex, without a definite median line and striae each side, dull, densely punctured; sides of elytra not parallel, subhumeral tubercle lacking, punctures of striae close, not completely concealed by scales.

Baris stacesmithi Sleeper, new species

Male.—Oblong-oval, convex; black; feebly shining, without a brassy luster; elytra with distant, narrow, very short, pale, recurved scales in punctures of intervals.

Rostrum two-thirds as long as pronotum, robust, strongly curved, impression between rostrum and head strong; sparsely, finely, deeply punctured, coarser laterally. Antennae inserted near middle of rostrum; first segment of funicle as long as following three. Club small, compact, ovate. Head strongly convex, sparsely, finely punctured, strongly alutaceous. Prothorax one-fourth wider than long, sides feebly convergent, sides nearly straight in basal two-thirds, then rounded to a feeble apical constriction, apex truncate, base with a feeble, truncated lobe; pronotum densely, coarsely, deeply punctured, intervals between punctures strongly alutaceous. Scutclium small, rounded. Elytra elongate, parallel in basal two-thirds, then rounded to apex; striae deeply impressed, strial punctures minute, nearly obsolete, about twice their diameter apart; intervals broad, flat, alutaceous; punctures large, close-set, round, deep, in a single line, their diameter one-third width of intervals, each with a short, narrow, pale, recurved scale. Ventral side coarsely, densely punctured, each puncture except those of prosternum with a short, narrow, pale, recurved scale. Abdominal segments strongly convex, first segment broadly impressed, punctures distant, nearly obsolete in impression, second segment feebly impressed anteriorly, suture between first and second segment obsolete at middle, third and fourth segments punctured only along posterior margin at middle, fifth segment truncate at apex with a short median lobe, a deep notch each side of lobe. Legs short. Femora distinctly but sparsely punctured, each puncture with a narrow, short, recurved seta. Pygidium and preceding tergite visible from above. Length 4.0 mm., width 1.8 mm.

Female.—Rostrum nearly as long as pronotum. First abdominal segment just perceptibly flattened, punctures distant, very minute in flattened area; second not perceptibly flattened, suture between first and second segments visible, strongly emarginate at middle; fifth segment truncate at apex, not modified at middle as in male. Length 4.0 mm., width 1.8 mm.

Holotype male, and allotype female, Creston, British Co-Lumbia, VI-30-45 (G. Stace Smith, E.L.S.). Thirty-one paratypes as follows: 5, VI-30-45; 1, VII-2-1945; 1, VII-6-1945; 3, VII-1-1951 (E.L.S.); 2, VI-17-1945; 10, VI-30-1945; 2, VII-6-1945; 7, VII-1-1951 (G.S.S.). All type material was collected at Creston, British Columbia, by G. Stace Smith on *Artemisa gnaphalodes* Nutta.

A few examples have evidence of a smooth median line and a few have some of the punctures confusedly placed on elytral intervals. Length of paratypes 3.5–4.5 mm., width 1.6–2.0 mm.

This species keys to *B. futilis* Casey in his treatment of the genus in 1892. It differs from *futilis* in the absence of the brassy luster, the widely separated punctures of pronotum, the peculiar modification of the fifth abdominal segment of male, and the longer rostrum.

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THE SOUTHWESTERN RESEARCH STATION OF THE AMERICAN MUSEUM OF NATURAL HISTORY.

The American Museum of Natural History has announced the establishment of The Southwestern Research Station. It is located on the eastern slope of the Chiricahua Mountains, near Portal, Cochise County, in southeastern Arizona. The property is within the limits of the Coronado National Forest at an elevation of 5400 feet.

The station was established for the purpose of making available research facilities for scientists and students in all branches of sciences, who have problems that can be investigated through the utilization of the faunal, floral and geological features of the area. It will be open during the entire year.

It is operated by the American Museum of Natural History, Central Park West at 79th Street, New York 24, New York and under the direction of Dr. Mont A. Cazier, Chairman and Curator of the Department of Insects and Spiders, to whom all inquiries should be addressed. Anyone interested in the station should write Dr. Cazier for the booklet which gives the details of the operation and a general description of the area.—*Editor*.